

Personal information

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Nationality	Italiana
Date of birth	06 December 1996
Place of birth	Brescia
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Work experience

March – September 2021	Winner of post-graduate research fellowship for the project “Validazione della tipizzazione mediante tecnologia NGS di marcatori STRs e SNPs localizzati su cromosomi autosomici e gonosomici utilizzabili in Genetica Forense e acquisizione di dati di popolazione” Scientific Officer Prof. Domenico De Leo - Department of Diagnostics and Public Health, University of Verona
November 2020 – February 2021	Volunteer attendance role at the Forensic Genetics Laboratory of the Section of Forensic Medicine, Department of Diagnostics and Public Health, University of Verona

Education and training

June – July 2023	Training period in forensic genetics and biostatistical computing for deconvolution of mixed traces, at Università Cattolica del Sacro Cuore di Roma, Section of Legal Medicine, Prof. Vincenzo Lorenzo Pascali
01 October 2021-to date	Ph.D. student in Nanoscience and Advanced Technologies , Forensic Science curriculum, at University of Verona, Department of Diagnostics and Public Health
November 2021	Licensure as biologist
09 October 2020	Master's degree in “Molecular and Medical Biotechnology” at the University of Verona, experimental thesis on “Optimization and validation of a new approach based on CE-HRMS for the screening analysis of novel psychoactive substances in urine”, Supervisor Prof.ssa Rossella Gottardo - Sec. Forensic Medicine
20 September 2018	Bachelor's degree in “Biotechnologie” at the University of Parma, experimental thesis on “Study and application of staining of interest for forensic histopathology”, Supervisor Prof. Rossana Cecchi - Sec. Forensic Medicine
07 July 2015	Secondary School Diploma , Liceo scientifico A. Calini (BS), Traditional address

INTERNSHIPS

January – October 2020	Internship in Forensic Toxicology at the Section of Forensic Medicine - Department of Diagnostics and Public Health, University of Verona
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August – September 2020	Internship in Neuroscience at the Section of Anatomy and Histology - Department of Neuroscience, Biomedicine and Movement, University of Verona
April – September 2018	Internship in Forensic Histopathology at the Section of Forensic Medicine - Department of Medicine and Surgery, University of Parma

STAGES

September 2019 – January 2020	Internship in Digital Forensics at “Studio di Ingegneria Informatica Forense” - Dr. Ing. Michele Vitiello, Brescia, Italy
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Personal skills and competences

The skills and scientific research activities are mainly articulated along four lines of research:

Forensic Genetics	- DNA extraction from biological samples (blood, saliva, semen, vaginal fluids, hair formations, biopsy tissues embedded in paraffin and fixed in formalin or other fixatives) - DNA quantification using manual techniques (such as agarose gel / UV transilluminator) and instrumental techniques using a fluorimetric technique (Qubit fluorometer) and Real-Time PCR - HID Rt Software v1.1/v1.2 - PCR amplification of autosomal and gonosomal microsatellites, short tandem repeats (STR) - Typing of single nucleotide polymorphisms (SNPs) with Real-Time PCR (ABI Prism 7500 Real-Time PCR system) - STRs marker typing using automated sequencers such as ABI Prism 3130 genetic analyzer with GeneMapper ID-X v.1.2 data analysis software and SeqStudio HID with GeneMapper ID-X v.1.6 data analysis software - Performing Massively Parallel (Next generation) Sequencing using MiSeq FGx Forensic Genomics System (Illumina) automated sequencer in forensic genetics and research use only (RUO) mode - Application of manual and computerized biostatistical calculation (Familias v. 3.2.9, Arlequin v.3 .5.2.2) for the determination of biostatistical parameters related to the genetic analysis of population data (allele and genotype frequencies, Hardy-Weinberg equilibrium, heterozygosity, power of discrimination, a priori and posterior exclusion power), biological paternity tests (paternity index (PI) and paternity probability) and parental relationships, - Application of manual and computerized biostatistical calculation on mixed genetic profiles in the context of crime scene investigation (LRmix Studio, EuroForMix, Casesolver, Python)
Forensic Toxicology	- Performing Capillary Zonal Electrophoresis (CZE), Gas Chromatography (GC) with Flame Ionisation Detector (FID), and Mass Spectrometry (MS) for the detection and identification of compounds of toxicological-forensic interest (drugs) in human biological samples. - Screening analysis of new psychoactive substances (cathinone, phenethylamines, tryptamines)
Forensic Histopathology	- Performing histological preparations for forensic purposes - Haematoxylin-eosin staining, Masson trichrome, Masson-Goldner trichrome, Van Gieson, Perls - Observation of the histological preparation with light and electron microscopy
Digital Forensic	- Basic knowledge of computer programs dedicated to computer forensic engineering (such as UFED Physical Analyzer, Oxygen Forensic, Magnet Acquire, CellBrite Reader) - Advanced knowledge of information technology in terms of the use of software dedicated to word processing, spreadsheets (Word, Excel, PowerPoint), keeping as up-to-date as possible with respect to the continuous evolution of IT (Information Technology)
Language skills	Italian native speaker Other Languages: English: BI Level B2 Certificate in ESOL International (B2 CEFR) Spanish: basic

Teaching activity

“Cultore della materia” A.A.2022/2023 – CdLM in Medicine

Tutorial and coordination activities

November 2022	Tutor in Forensic Biotechnology Stage at University of Verona
December 2021 - October 2022	Thesis tutor and co-supervisor: Thesis title: “Identification of the ABCB1 gene's genetic variants potentially predisposing to antibiotic resistance” Master's degree: “Molecular and Medical Biotechnology”, University of Verona

Research activity

PRIN 2022	Project research group component in Progetti di Rilevante Interesse Nazionale (PRIN); Code 2022NXK38S; Prof. Pier Paolo Piccaluga; LS7 - Diagnostic Tools, Therapies and Public Health: Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics
01 May 2021 – to date	Project research group component: ‘Messa a punto e validazione di metodiche biomolecolari per rivelare la presenza di acidi nucleici virali in campioni biologici post-mortem forensi’, Scientific Officer Prof. Domenico De Leo - Department of Diagnostics and Public Health, University of Verona, CARP n.02 R.1/2021.
01 July 2020 – 01 July 2021	Project research group component ‘Validazione della tipizzazione mediante tecnologia NGS di marcatori STRs e SNPs localizzati su cromosomi autosomici e gonosomici utilizzabili in Genetica Forense e acquisizione di dati di popolazione’, Scientific Officer Prof. Domenico De Leo - Department of Diagnostics and Public Health, University of Verona

Professional affiliations

2023	Genetisti Forensi Italiani (Ge.F.I) International Society for Forensic Genetics (ISFG)
2022	Genetisti Forensi Italiani (Ge.F.I) International Society for Forensic Genetics (ISFG)
2021	International Society for Forensic Genetics (ISFG)

Publications

- Author/Co-author of six publications in international scientific journals indexed in Scopus / Web of Science
- Author/Co-author of three abstracts/communications at national/international conferences/congresses

Publications in international scientific journals

1. Gottardo R., Sorio D., **Soldati G.**, Ballotari M., Porpiglia N., Tagliaro F.
Optimization and validation of a new approach based on CE-HRMS for the screening analysis of Novel Psychoactive Substances (cathinones, phenethylamines, tryptamines) in urine
ELECTROPHORESIS 2021, 42:450-459.

2. Turrina S., Gibellini G., Giannini G., Lagni A., Diani E., Lotti V., **Soldati G.**, Gibelli G., Raniero D., De Leo D. Preliminary Study on the Possibility to Detect Virus Nucleic Acids in Post-Mortem Blood Samples Front. Biosci. 2022, 27 (6):183
3. Turrina S., **Soldati G.**, Raniero D., De Leo D. Trisomy 21 disclosure using STR and SNP markers typed by MiSeq FGx Forensic Genomics System Forensic Science International: Genetics Supplement Series 2022, 8:62-64
4. **Soldati G.**, Turrina S., De Leo D. Forensic assessment on the application of a virtual pool of 30 Y-STRs Forensic Science International: Genetics Supplement Series 2022, 8:317-320
5. **Soldati G.**, Turrina S., Saccardo C., Ausania F., De Leo D. Internal validation study to assess the SeqStudio™ for human identification's performance International Journal of Legal Medicine: 2023, 137:971–980
6. **Soldati G.**, Turrina S., Saccardo C., Raniero D., De Leo D. Can tissue deparaffinization influence the extracted DNA for forensic purposes? European Journal Of Histochemistry: 2023, 67(S1):16-17

Abstract/Communications at National/International Conferences and Congresses

1. **Soldati G.**, Turrina S., Colombari M., Gibelli F., De Leo D. Valutazione preliminare della tipizzazione di campioni di DNA forense mediante GlobalFiler IQC PCR Amplification Kit e SeqStudio Genetic Analyzer for Human Identification (HID) 44° Congresso Nazionale SIMLA. Milano (Italy), 18-19 June 2021.
2. Turrina S., **Soldati G.**, Ausania F., Raniero D., Gibelli F., Del Balzo G., De Leo D. Mutazioni del gene ABCB1 ed efficacia dell'approccio terapeutico al COVID-19: una possibile correlazione? 45° Congresso Nazionale SIMLA. Bari (Italy), 26-28 May 2022.
3. **Soldati G.**, Turrina S., Ausania F., Saccardo C., Raniero D., De Leo D. Variazioni di Sequenza rilevate mediante Massively Parallel Sequencing (MPS) su 24 Y-STRs in una popolazione del Nord-Est Italia. XXVIII Congresso Nazionale Genetisti Forensi Italiani (Ge.F.I.). Genova (Italy) 10-12 November 2022. **Best Communication Award.**

Participation in Conferences and Congresses

8-9 Giugno 2023	Nano23@uniVR – University of Verona (Participant and Co-worker in the workshop organisation)
10-12 november 2022	XXVIII Congresso Nazionale Genetisti Forensi Italiani (Ge.F.I.) – Genova
29 august – 3 september 2022	29° Congress International Society for Forensic Genetics (ISFG) – Washington, DC

Attendance at training courses and seminars

Training courses	- “Improving your statistical inferences”, by Daniel Lakens. Eindhoven University of Technology (Online), June-August 2023 - “Interpretazione statistica di profili genetici complessi”, organized by Ge.F.I. and Ordine dei Biologi della Toscana e dell'Umbria. Firenze, 17-18 March 2023 - “Challenging Forensic Science: How Science Should Speak to Court”, by Prof. Alex Biedermann, Prof. Franco Taroni, Prof. Christophe Champod, Prof.ssa Tacha Hicks. University of Lausanne, December 2022 – January 2023 - “SeqStudio Genetic Analyzer for Human Identification (HID) and software analysis: SeqScanner, SeqScape and SeqAnalysis”, organized by AppliedBiosystems. Verona, June 2021
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Seminars

- "Il DNA nelle scienze forensi. Dall'interpretazione del DNA profiling alla valutazione delle relazioni tecniche", organized by Legal Genetics, 16-17 October 2020.
- "Digital forensics", organized by Dott. Ing. Michele Vitiello. Brescia, October-December 2019
- "Human Identification Solutions Conference (HIDS) Survey", by Thermo Fisher Scientific, 23-24 May 2023
- "Public speaking", by Prof. Gianluca C.J. Mainino. Verona, September 2022
- "Use of biometrics to address human rights matter, border security, and human trafficking", by Prof. Timothy Palmach. Verona, July 2022
- "Critical analysis of high-profile murder case 'The staircase' involving flawed blood stain pattern analysis", by Prof. Timothy Palmach. Verona, July 2022
- "Organi di garanzia in materia di pari opportunità e prevenzione di fenomeni di discriminazione o di mobbing", by Dott.ssa Torelli. Verona, May 2022
- "Raptus omicida e la sospensione di coscienza – Lucidi assassini o colpevoli involontari?", by Dott. Fabrizio Mignacca. May 2021

DICHIARAZIONE DI VERIDICITÀ

Il contenuto del presente curriculum vitae corrisponde a verità e le dichiarazioni in esso contenute vengono rese ai sensi degli artt. 46 e 47 del D.P.R. 445/2000 (Dichiarazione sostitutiva di certificazione e/o sostitutiva dell'atto di notorietà).

DATI PERSONALI

Si autorizza il trattamento dei dati personali ai sensi dell'art.13 Decreto Legislativo 30 giugno 2003, n.196 "Codice in materia di protezione dei dati personali".

Dott.ssa Giulia Soldati

